

Canola: Canada's Oil

Canola is a combined word
meaning "Canadian Oil".



Teacher's Guide Grades 3 - 6

Revised 2010

Curriculum Connections

Activity 1 – The Canola Plant (pp. 1-3)

Science and Technology:

Grade 3 – Understanding Life Systems:

Growth and Changes in Plants

- investigate similarities and differences in the characteristics of various plants, and ways in which the characteristics of plants relate to the environment in which they grow;
- demonstrate an understanding that plants grow and change and have distinct characteristics.

Language

Grade 3 – Reading

- read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;
- recognize a variety of text forms, text features, and stylistic elements and demonstrate understanding of how they help communicate meaning;
- use knowledge of words and cueing systems to read fluently.

Grade 3 – Writing

- generate, gather, and organize ideas and information to write for an intended purpose and audience.

Grade 4 – Reading

- read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;
- recognize a variety of text forms, text features, and stylistic elements and demonstrate understanding of how they help communicate meaning;
- use knowledge of words and cueing systems to read fluently.

Activity 2 – From Seed to Oil (pp. 4-7)

Social Studies

Grade 3 – Canada and World Connections:

Urban and Rural Communities

- identify and compare distinguishing features of urban and rural communities;
- explain how communities interact with each other and the environment to meet human needs.

Mathematics

Grade 6 – Number Sense and Numeration

- read, represent, compare, and order whole numbers to 1 000 000, decimal numbers to thousandths, proper and improper fractions, and mixed numbers;

- solve problems involving the multiplication and division of whole numbers, and the addition and subtraction of decimal numbers to thousandths, using a variety of strategies;
- demonstrate an understanding of relationships involving percent, ratio, and unit rate

Activity 3 – Canola: An Important Commodity for Canadian Trade (pp. 8-10)

Social Studies

Grade 6 – Canada and World Connections:

Canada's Links to the World

- identify and describe Canada's economic, political, social, and physical links with the United States and other regions of the world;
- use a variety of resources and tools to gather, process, and communicate information about the domestic and international effects of Canada's links with the United States and other areas of the world;
- explain the relevance to Canada of current global issues and influences.

Mathematics

Grade 6 – Number Sense and Numeration

- read, represent, compare, and order whole numbers to 1 000 000, decimal numbers to thousandths, proper and improper fractions, and mixed numbers;
- solve problems involving the multiplication and division of whole numbers, and the addition and subtraction of decimal numbers to thousandths, using a variety of strategies;
- demonstrate an understanding of relationships involving percent, ratio, and unit rate.

Activity 4 – Canola and Healthy Living (pp. 11-12)

Health and Physical Education

Grade 3

- Describe the relationship among healthy eating practices, healthy active living, and healthy bodies.

Grade 4

- Explain the role of healthy eating practices, physical activity, and heredity as they relate to body shape and size.

Grade 5

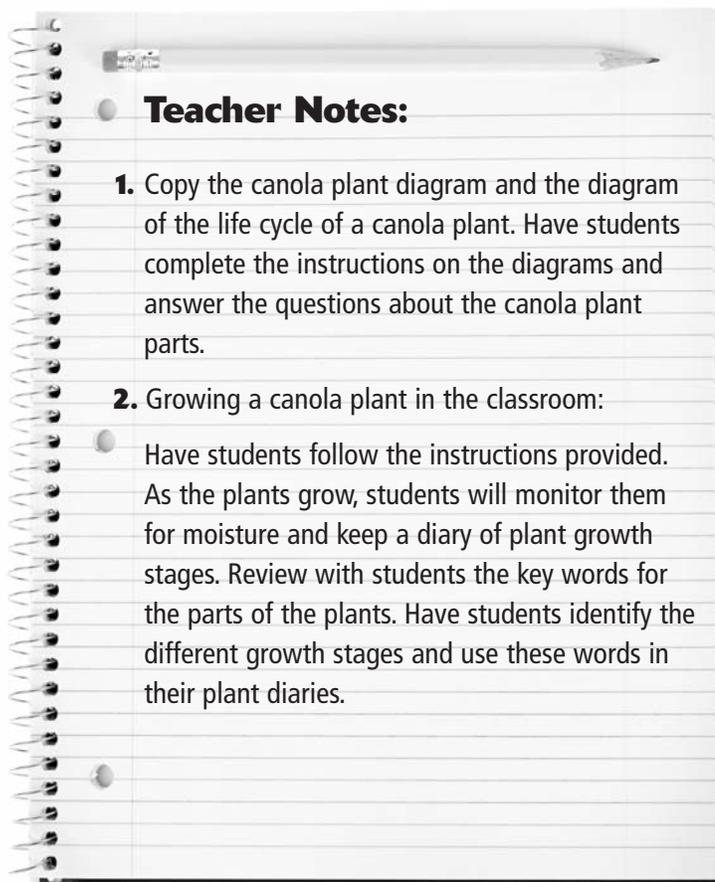
- Analyze information that has an impact on healthy eating practices.

Accommodations

All students must have an educational environment and programs which meet their specific needs. Teachers provide that appropriate atmosphere which is conducive to student learning. You may find the following list of accommodations helpful in assisting students with their learning:

- Groups may be predetermined in order to meet the needs of all students;
- A range of materials (including audio-visual resources) that reflect different learning styles and reading levels will provide greater breadth and depth to learning experiences;
- Allow students to use calculators and computer programs if appropriate;
- Use a variety of teaching and learning strategies such as partners, collaborative groups, cross-age tutoring and independent study;
- Main ideas and/or new information should be mapped out and organized using charts, graphs or highlighters as appropriate;
- Give students extra time to complete assignments (when needed);
- Provide vocabulary lists, and use methods such as context cues, related words, or inferential meanings to assist students in acquiring new vocabulary;
- Provide a variety of methods by which a student can demonstrate learning, such as oral presentation, graphical representation, poster and pamphlet.

The Canola Plant



Answer Key

The Canola Plant

1. Labels in order from top to bottom:
flower, stem, leaves, cotyledon, roots
2.
 - roots - help anchor the plant and provide water and nutrients from the soil
 - stem - supports the flowers and delivers nutrients upwards
 - leaves - site of the food making process called photosynthesis
 - flowers - release pollen for fertilization, lose their petals as they turn into pods
3. Life Cycle of the Canola Plant
Correct numbers of stages of the life cycle in clockwise order: 6, 3, 1, 5, 2, 4

Extension Activities

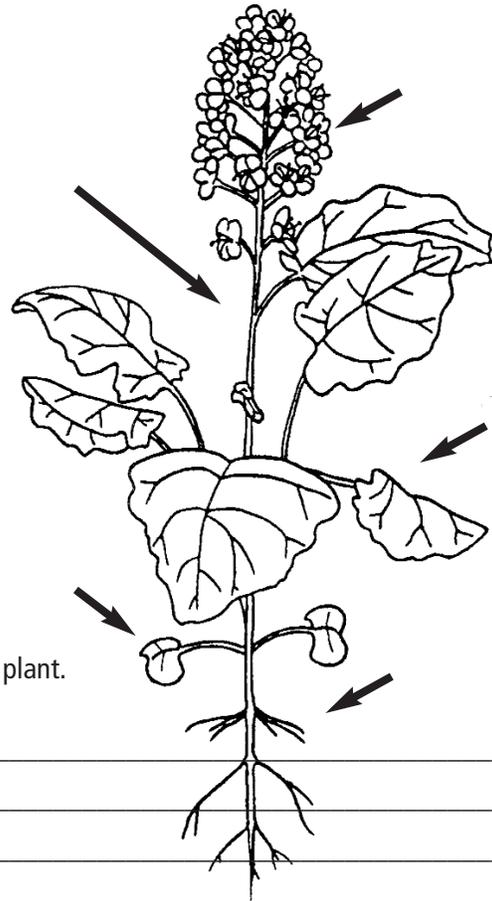
1. Have students look up the website <http://www.canolacouncil.org/chapter5.aspx> and determine prime climate conditions necessary for growing canola crops. During crop growing time, have the students use the internet to track the weather in a canola growing area, e.g. southern Ontario or one of the prairie provinces. Keep a record of this data. Students can make predictions about the effect of current weather patterns on the canola growth and harvesting.
2. Students investigate other seed crops to compare and contrast their growth patterns and their optimal climate conditions, e.g. soybeans.

ACTIVITY
1

The Canola Plant

1. On the diagram provided locate the following parts of the canola plant.

- flower
- stem
- leaves
- cotyledon
- roots



2. Explain the function of each of the following parts of the plant.

- a) roots _____

- b) stem _____

- c) leaves _____

- d) flower _____

THESE ARE PICTURES OF A CANOLA PLANT AS IT GROWS. NUMBER THEM IN ORDER.

- 1) SEED
- 2) COTYLEDON
- 3) ROSETTE
- 4) BOLTING
- 5) FLOWERING
- 6) PODDING

Canola Kids Activity Book, Manitoba Canola Growers



Growing Canola in the Classroom

What you need:
top soil
plant pot
canola seed - 1 per pot
pan with 2-3 cm water (big enough for the pot to sit in)

1. Fill your pot with soil until it is at the top of the container. Press down on the soil with your fingers until it is about 1 cm below the top of the pot.
2. Place your pot in the pan of water until the soil becomes nice and wet. Remove the pot.
3. Use a pencil to make a 1 cm hole in the centre of your soil. Place one canola seed in the hole. (Only one seed per pot.) Brush some soil over the seed. Put your plant in sunlight and record your observations.
4. At first, your plant won't need much water, but once it has produced 4-5 leaves, it will need to be watered more often. Check your plant daily to make sure that the soil is moist but not soaking wet.

Answer the following questions:

1. What is the job of the seed coat? _____

2. Why do plants need roots? _____

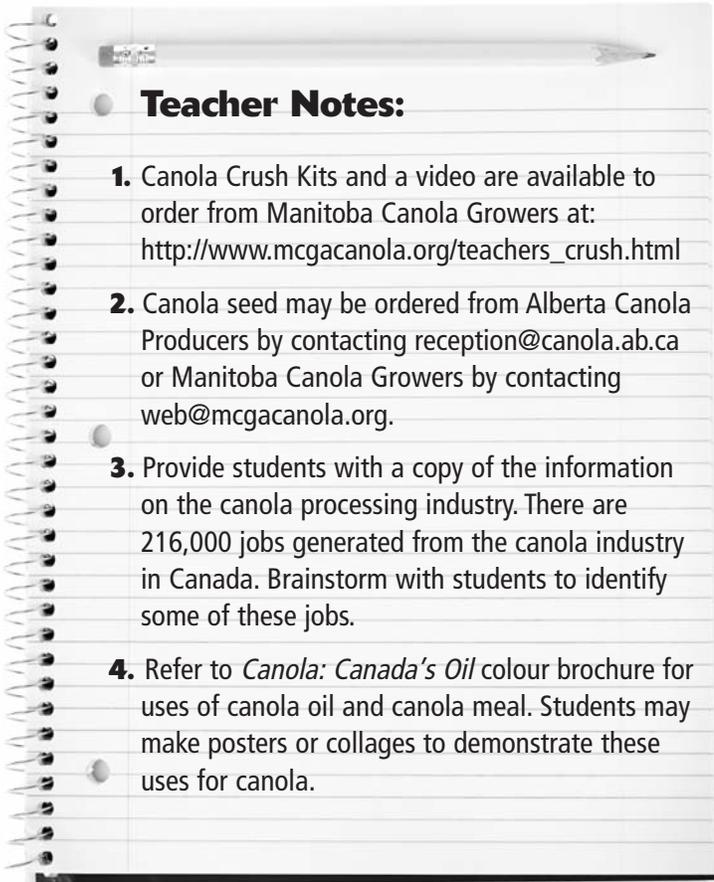
3. What is the purpose of the stem of a plant? _____

4. What is needed for a seed to grow into a plant? _____

5. Why do we need plants? _____

From Seed to Oil

ACTIVITY 2



Teacher Notes:

1. Canola Crush Kits and a video are available to order from Manitoba Canola Growers at: http://www.mcgacanola.org/teachers_crush.html
2. Canola seed may be ordered from Alberta Canola Producers by contacting reception@canola.ab.ca or Manitoba Canola Growers by contacting web@mcgacanola.org.
3. Provide students with a copy of the information on the canola processing industry. There are 216,000 jobs generated from the canola industry in Canada. Brainstorm with students to identify some of these jobs.
4. Refer to *Canola: Canada's Oil* colour brochure for uses of canola oil and canola meal. Students may make posters or collages to demonstrate these uses for canola.

Answer Key

Harvesting Canola Activities

1. You do the Math:

- a) number 3 canola
- b) number 2 canola
- c) number 3 canola
- d) number 1 canola
- e) number 2 canola

2. From Seed to Oil:

77, 33, 22, 66, 55, 111

Extension Activities

1. Research the location of canola seed crushing plants in Canada. Locate and mark these on a map. Then, on the same map, indicate the main areas of canola growing in Canada. Suggest the modes of transportation that might be used in transporting the canola seed to the crushing plants.
2. Research the average yield of canola seed from one acre of land, the cost of growing one acre of canola and the revenue for that amount of seed. What is the farmer's profit per acre?
3. Historic Canadian canola crushing totals are available at: http://www.canolacouncil.org/crush_history.aspx.

Use these statistics to compose a line graph for each of total crush, oil production and meal production in the last 10 years. Interpret the graph to identify trends in the above three.

ACTIVITY
2

Harvesting Canola

Canola plants are harvested in the fall for the canola seeds. Farmers usually use two pieces of farm machinery.

First, farmers will swath the canola field, and let it dry in rows in the field, called windrows.

Next, a combine will come and pick up the cut canola plants. Some farmers will straight cut the canola - and cut and harvest the dried canola plants in one operation.

The canola seeds are kept in a holding tank right on the combine while the leftover plant parts fall out the back of the combine to be composted.

Grading Canola

Canola is graded by the percentage of green seeds found in a sample of 100 seeds. If the sample has no more than 2% (2 seeds in a 100 seed sample), then the canola is considered **number one canola** and the farmer would receive top market price. Between 3-6 %, means that it would be **number two canola** and between 7-20% would be considered **number three canola**. **Number two** and **number three canola** brings the farmer less money. The chlorophyll in the seeds will turn the canola oil a green colour.

Because it costs more during production for the canola crushing plants to remove the chlorophyll from the oil, the farmer receives less money for the seeds. The canola crushing plants remove chlorophyll from the oil because the majority of consumers prefer a clear to pale yellow canola oil. If you are able to get a sample of canola seeds from a farmer, crush it to see if you can determine the quality.



(Credit: www.canolakids.ca)



(Credit: Manitoba Canola Growers)

Student Activities

1) You do the math...

Farmer Bert took the following samples from his canola fields. Grade the following seed samples Is it number one, number two or number three canola?

- a) 14 green seeds in a sample of 100
- b) 2 green seeds in a sample of 50
- c) 9 green seeds in a sample of 100
- d) 1 green seed in a sample of 100
- e) 1 green seed in a sample of 25

2) From Seed to Oil

You do the calculations...

1 bushel of canola seed can make approximately 11 litres of oil.

How many litres of oil can be crushed from...

- 7 bushels of canola seed? _____
- 3 bushels of canola seed? _____
- 2 bushels of canola seed? _____
- 6 bushels of canola seed? _____
- 5 bushels of canola seed? _____
- 10 bushels of canola seed? _____

ACTIVITY
2

Canola Processing Industry

Canola seeds are crushed into two component parts: oil and meal. The oil and meal are then manufactured into a variety of products.

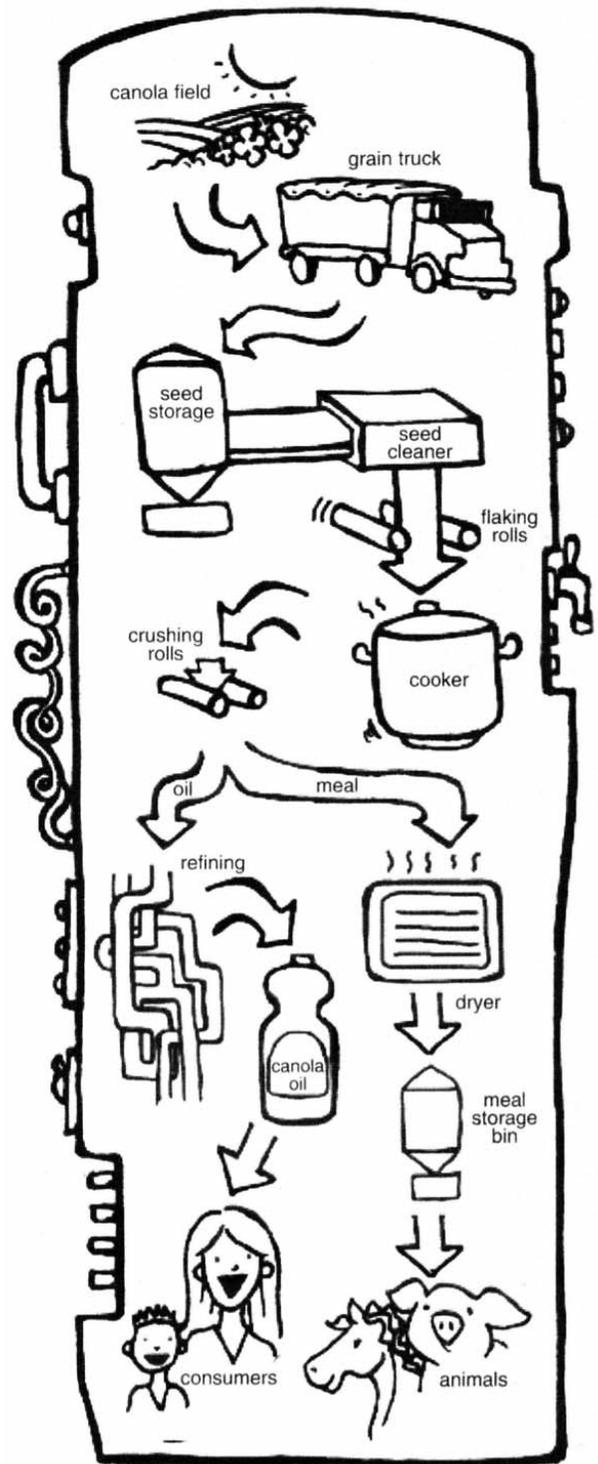
Canola oil extraction:

Step 1 - The first stage in processing canola is to roll or flake the seed. This ruptures the cells and makes the oil easier to extract.

Step 2 - Next, the flaked or rolled seeds are cooked and subjected to a mild pressing process which removes some of the oil and compresses the seeds into large chunks called "cake fragments."

Step 3 - The cake fragments undergo further processing to remove most of the remaining oil. The oil extracted during each step is combined. The oil is then subjected to processing according to the end product requirements. Different treatments are used to process salad oils, margarines and shortenings.

Nothing goes to waste when crushing canola seed. Canola meal remains after the oil has been removed from the seed. It is an excellent protein source. Canola meal is fed to livestock including horses, chickens, cows, sheep, pigs and farmed fish. You can also find canola meal in dog and cat food.



(Credit: Manitoba Canola Growers)

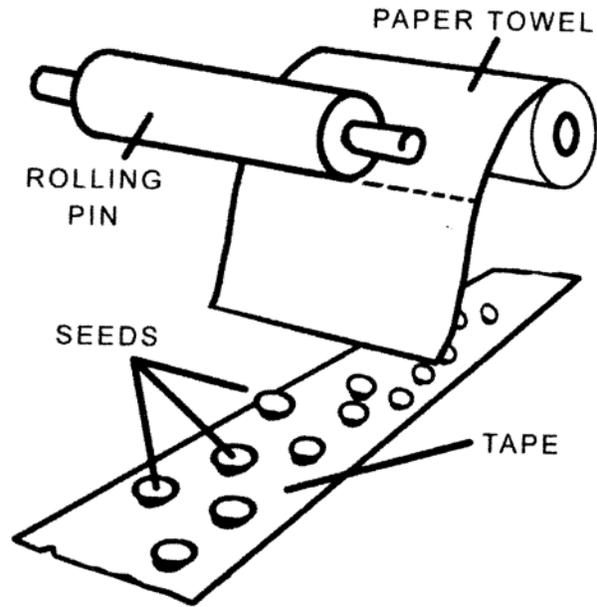
Did you know that each canola seed contains approximately 43% oil?

ACTIVITY
2

Canola Crush Activity

Materials needed:

- canola seeds
- masking tape
- paper towel
- wallpaper roller or rolling pin



Instructions:

1. Place some canola seeds on a strip of masking tape.
2. Stick the tape with the canola seeds onto a piece of paper towel.
3. Using a wallpaper roller or small rolling pin, crush the seeds.
4. Once the seeds have been crushed, turn the paper towel over and see how much canola oil the towel has absorbed.
5. If you can, remove the tape from the towel. The yellow-brown residue left on the tape is called canola meal.

(Credit: Alberta Canola Producers)

Canola: An Important Commodity for Canadian Trade

Teacher Notes:

1. Provide each student with a copy of the Pacific View map and Export Tables. Because the world map is taken from the perspective of the "Pacific View", students may need some support to locate the various trading nations. A traditional map (with North America located on the left side) may be helpful.
2. Students will require a copy of the *Canola: Canada's Oil* colour brochure.
3. Market statistics for the Canadian canola industry are updated monthly by the Canola Council of Canada. To find the most recent statistics, click on the link, "Canadian Canola Industry" on the council's website <http://www.canolacouncil.org>.

Extension Activities

1. It has been suggested that the "Pacific View" map of the world reflects the relationship between North America and its trading partners today more than the traditional map of the world does.
Why might this be so?
2. Create pie (or bar) graphs to illustrate the statistics for canola seed, oil and meal exports.
3. The Canola Council of Canada has established the 'Canola...growing great 2015' plan. It establishes 15 million tonnes of sustained market demand and production as its goal for the year 2015. Its theme is 'The Canadian Canola Industry. Innovative. Resilient. Determined to create superior value and a healthier world'. Suggest ways that the industry can meet this objective. Suggest a marketing strategy for the canola industry to meet this target.

Answer Key

1. a)

	Country	Tonnes	Percentage
Canola oil	USA	535.7	53.8
Canola meal	USA	570.2	55.3
Canola seed	Japan	1008.9	27.9

b) China, 22.6%

2. a) Japan does not produce canola and it has crushing plants for processing canola seed.
b) The USA does not have the capacity to process enough canola to meet the demand for oil and meal.
c) Other countries can produce the oil they need from seed.

3. Seed 4827.5 (000 tonnes)
Meal 1374.4 (000 tonnes)
Oil 1328.4 (000 tonnes)

4. Seed - crushed to remove canola oil.

Meal - feed for livestock, poultry and fish.

Oil - salad oil, margarine, shortening and a variety of other food products. Also used for non-edible uses such as ink, sun-tan oil and bioplastics.

Map Work:

1. The Pacific View map includes the major countries to which canola is exported.
2. a) Prairie provinces (Alberta, Manitoba, and Saskatchewan), British Columbia (north-eastern area) and Ontario (southern area).
b) Depends on where canola originates and to which country it is headed.
3. a) Transportation - rail, trucking, seaways.
b) St. Lawrence Seaway - access to Great Lakes and Western Canada.



Canada Exports

1. a) Using the information on the export tables provided, identify the largest annual importer of each of canola oil, canola meal and canola seed and complete the chart below.

	Country (largest annual importer)	Tonnes (# Imported for 2010)	Percentage (% of total amounts exported to all countries)
canola oil			
canola meal			
canola seed			

b) Which country is a close second for importing canola seed? What is the percentage?

2. State a reason why:

- a) Japan imports canola seed.
- b) The USA imports so much oil and meal, but less seed.
- c) Canada exports so much seed and meal, but less oil.

3. If nearly 75% of the canola seed, oil and meal production in Canada is exported to destinations such as the United States, Japan, Mexico and China, use the Year-to-Date totals for seed, meal and oil exported to calculate the approximate amount of each commodity grown or produced in Canada during that time. Seed? Meal? Oil?

4. List the most important uses of canola seed, canola meal, and canola oil.

Map Work

1. Locate on the 'Pacific View' world map, the countries listed as the major importers of canola products.

2. a) Name the areas of Canada in which canola is grown.

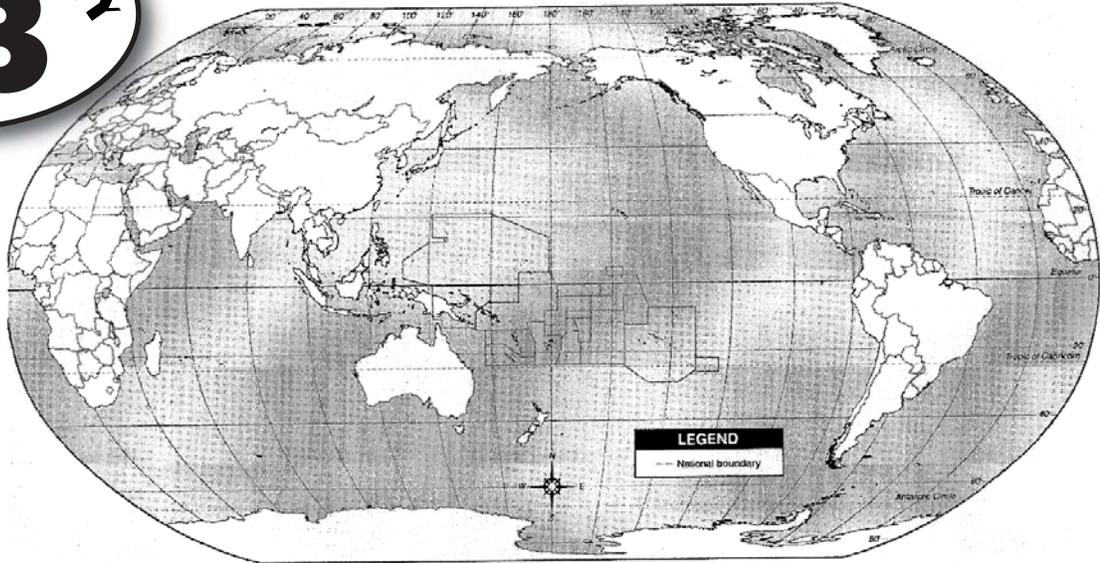
- b) What is the most appropriate seaport for exporting canola products?
- c) On the map, sketch possible trade routes for transporting canola products to Mexico, China and Japan.

3. Although most canola is grown in western Canada, there are many farmers growing canola in southern Ontario. Suggest appropriate transportation methods and trade routes for southern Ontario farmers to export their products.

Why is the St. Lawrence Seaway useful for trading canola?

ACTIVITY
3

World: Pacific View



Copyright © Houghton Mifflin Company. All Rights Reserved.

1. "Source: Cereals & Oilseeds Review- Statistics Canada"
2. "Monthly totals may not accumulate to YTD totals because of rounding"

Canadian Canola Seed Exports (000 Tonnes) 2010

	Bangladesh	China	Europe	Japan	Mexico	Pakistan	Turkey	U.A.E.	U.S.A.	Others	Total
January	-	117.3	-	103.8	44.0	41.5	-	93.4	44.8	0.1	444.9
February	-	113.6	-	195.6	170.7	-	-	60.9	50.0	-	590.8
March	72.5	121.4	-	147.8	217.8	86.7	-	91.2	75.0	-	815.1
April	21.4	165.8	-	145.8	52.6	89.6	-	42.6	67.0	-	584.8
May	-	179.9	-	211.5	76.5	95.1	-	43.1	61.7	-	667.8
June	18.2	118.7	-	204.4	38.5	-	-	74.0	63.3	0.1	517.2
Total YTD	112.1	816.7	-	1008.9	600.1	312.9	-	405.2	361.8	.2	3,620.6

Canadian Canola Meal Exports (000 Tonnes) 2010

	Ireland	Japan	Mexico	Phillippines	Taiwan	U.S.A.	Others	Total
January	-	-	15.6	-	3.0	94.6	26.1	132.5
February	-	-	13.4	-	0.4	96.5	72.0	182.3
March	-	-	27.1	-	0.3	96.3	48.6	172.3
April	-	-	16.6	-	0.1	103.1	82.5	202.3
May	-	-	17.6	-	0.1	91.5	40.9	150.1
June	-	-	10.4	-	0.3	88.2	92.5	191.3
TOTAL YTD	-	-	100.7	-	4.2	570.2	362.6	1,030.8

Canola Oil Exports (000 Tonnes) 2010

	China	Columbia	Germany	Hong Kong	India	Japan	Netherlands	S. Korea	Taiwan	U.S.A.	Others	Total
January	48.0	0.3	-	5.0	-	0.5	-	0.4	1.1	87.9	-	143.3
February	45.5	0.3	-	3.2	-	0.9	-	1.5	-	80.8	0.4	132.7
March	75.7	0.3	-	5.0	-	0.8	-	1.5	-	101.9	-	187.6
April	96.8	0.1	-	1.8	-	1.1	-	2.8	2.0	95.3	-	199.9
May	51.5	0.3	-	-	-	0.4	-	2.0	-	95.3	1.9	151.5
June	81.3	0.2	18.2	-	-	0.2	-	3.2	.0	74.5	1.5	181.3
TOTAL YTD	398.8	1.5	18.2	15.0	-	3.9	-	11.4	3.1	535.7	3.8	996.3

Canola and Healthy Living

Teacher Notes:

- To introduce the subject of fats in the diet, conduct a discussion based on the topic of 'good fats' and 'bad fats'. Some excellent websites for the teacher are:
www.canolainfo.org/health/index.php
www.canolainfo.org/media/pdfs/canola-fatmaze.pdf
www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/trans-eng.php#th
www.heartandstroke.com/site/c.ikiQLcMWJtE/b.3484237/k.4695/Dietary_fats_oils_and__cholesterol.htm
- Have students refer to the *Canola: Canada's Oil* colour brochure for information on the nutrition facts of canola oil.
- Have students answer the following questions:
 We eat canola oil that is crushed out of the seeds of the canola plant. Canola oil adds healthy fat to our diet.
 a) Why do we need fat?
 b) About how much of our daily consumption of calories should come from fat?
 c) Why is it bad to consume fat?
 d) Why is canola a healthy food choice for fat?
- Following this discussion, students will be prepared to understand the data in the Dietary Fat chart on page 12.

Answer Key

Canola Healthy Living-

- | | |
|-----------------------|---------------------|
| OMEGA 6 (high to low) | OMEGA 3 |
| Corn Oil | Canola Oil |
| Soybean Oil | Soybean Oil |
| Canola Oil | Olive Oil, Corn Oil |
| Olive Oil, Lard | Lard, Butter |
| Butter | |
- Answers will vary.

Extension Activities

- Express the information found in the chart about dietary fats in the form of a bar graph. Choose a different colour to represent each of the dietary fats. Arrange the elements of your graph to support the statement that canola is an excellent way to add required fat to our diets.
- Fats in depth - On the internet or in a health textbook, find the answers to the following:
 - Does canola contain cholesterol? How do you know? Is there any fat on the list that does? Why?
 - Identify two other sources of "Essential Fatty Acids."
 - Using statistics, explain why it's healthier to eat an occasional order of fries than a hamburger.



Canola Healthy Living

Comparison of Dietary Fats

Canola is a healthy food choice. Below is a comparison of canola and other types of fats and oils.

DIETARY FAT	Saturated Fat ¹	Monounsaturated Fat ²	Polyunsaturated Omega-6 Fatty Acids ³	Polyunsaturated Omega-3 Fatty Acids ³
Canola Oil	7%	61%	21%	11%
Corn Oil	13%	29%	57%	1%
Olive Oil	15%	75%	9%	1%
Soybean Oil	15%	23%	54%	8%
Lard	43%	47%	9%	1%
Butter	68%	28%	3%	1%

¹ Saturated Fat: The "bad" fat. Causes the build-up of cholesterol in humans.

² Monounsaturated Fat: Helps lower cholesterol in humans.

³ Omega-6 and Omega-3 Fatty Acids carry fat soluble vitamins. They are necessary in our diet since our bodies cannot make them.

- This chart is organized according to the saturated fat content of the various fats listed. Reorganize the chart so that it illustrates the amount of fatty acids once for omega-6 and again for omega-3 available in each fat from high to low. Comment on any changes you find when you compare the two lists.

DIETARY FAT	Saturated Fat ¹	Monounsaturated Fat ²	Polyunsaturated Omega-6 Fatty Acids ³	Polyunsaturated Omega-3 Fatty Acids ³

DIETARY FAT	Saturated Fat ¹	Monounsaturated Fat ²	Polyunsaturated Omega-6 Fatty Acids ³	Polyunsaturated Omega-3 Fatty Acids ³

- Why is canola oil a nutritionally well-balanced, healthy choice? Convey your thoughts in a speech, poster or another presentation method of your choice.

Monster Cookies

Ingredients:

- 1/2 cup canola oil (125 mL)
- 1/2 cup non-hydrogenated canola margarine (125 mL)
- 1 cup brown sugar (250 mL)
- 1 cup granulated sugar (250 mL)
- 3 eggs
- 1 Tbsp vanilla (15 mL)
- 2 1/2 cups all purpose flour (625 mL)
- 1/2 tsp salt (2 mL)
- 2 tsp baking soda (10 mL)
- 1 1/2 cups rolled oats (375 mL)
- 1 cup candy coated chocolate pieces (250 mL)
- 1 cup chocolate chips (250 mL)
- 1/2 cup chopped pecans (125 mL) (optional)



Yield: 3 dozen cookies

Based on 1 serving

Calories	200 cal
Total Fat	10 g
Saturated Fat	2.5 g
Monounsaturated Fat	0 g
Polyunsaturated Fat	0 g
Trans Fat	0g
Cholesterol	20 mg
Protein	3 g
Carbohydrates	25 g
Fibre	1g
Iron	0 mg
Sodium	130 mg
Calcium	0 mg

Instructions:

1. Preheat oven to 350 F (180 C). Beat canola oil, margarine, brown sugar, white sugar, eggs and vanilla until light and fluffy.
2. In a separate bowl, combine flour, salt and baking soda, then add to the egg mixture. Fold in the oatmeal, candy coated chocolate pieces, chocolate chips and pecans. Drop by spoonful and bake for 10 minutes until golden brown.



Hummus

Ingredients:

- 1 (19 oz) can chickpeas, rinsed and drained (540 mL)
- 5 Tbsp canola oil (75 mL)
- 1/4 cup freshly squeezed lemon juice (50 mL)
- 1 garlic clove, minced
- 1 tsp pepper (5 mL)
- 1/2 tsp salt (2 mL)

Instructions:

In a food processor, add chickpeas, garlic and lemon juice. Blend in canola oil, pepper and salt. Process until smooth. Place in a serving dish. Serve with pappadams, pita crisps, crackers or cut up vegetables.

Canola Resources

Alberta Canola Producers Commission - <http://canola.ab.ca>
BC Grain Producers Association - <http://www.bcgrain.com>
Canadian Canola Growers Association - <http://www.ccg.ca>
Canadian Grain Commission - <http://www.grainscanada.gc.ca>
Canola Council - <http://www.canolacouncil.org>
CanolaInfo - <http://www.canolainfo.org>
Manitoba Canola Growers - <http://www.mcgacanola.org>
Northern Canola Growers Association - <http://www.northerncanola.com>
Ontario Canola Growers Association - <http://www.ontariocanolagrowers.ca>
Saskatchewan Canola Development Commission - <http://www.saskcanola.ca>
Saskatchewan Canola Growers Association - <http://www.canolagrowers.ca>
Statistics Canada - Canola: A Canadian Success Story -
<http://www.statcan.gc.ca/pub/96-325-x/2007000/article/10778-eng.htm>



Acknowledgements (2005)

Writer Mary Lou Smitheram Education Consultant
Editors Brian Watson Director, Resource Development OAFE
Adrienne Robertson Resource Development Assistant
Layout/Graphics Lynn Chudleigh
Printing Colour Works

Acknowledgements (2010)

Curriculum Updates and Revisions Brenda Stobo, Education Consultant, OAFE
Editors Jan Robertson, Marketing & Communications Manager, OAFE
Leanne Campbell, Project Coordinator,
Manitoba Canola Growers Association

Teachers are granted permission to reproduce parts of this document for their classroom use only. Reproduction for other than classroom use, in any format, is not allowed without permission from Ontario Agri-Food Education Inc.



Ontario Agri-Food Education Inc.
8560 Tremaine Road, P.O. Box 460,
Milton, Ontario L9T 4Z1
Tel.: 905-878-1510
Fax: 905-878-0342
Email: info@oafe.org
www.oafe.org
www.farmsfoodfun.com

